
GUIDE to Using

DAFIS MIR / DW

DAFIS Management Information Reporting / Data Warehouse (DAFIS MIR / DW)

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Chapter 1 - Introduction

1.1. Purpose

A significant need and desire is present to provide Departmental Accounting and Financial Information System (DAFIS) users with the ability to browse, retrieve, consolidate, analyze, and present information that resides in the DAFIS database. This initial phase of the DAFIS Management Information Reporting/ (DAFIS MIR / DW) has been developed to provide immediate access to current financial data in a flexible and usable format. The DAFIS MIR / DW is valuable to the Department of Transportation (DOT). It offers these significant advantages:

- Centralized, universal access to the users' financial information
- Quick and easy use
- Capability to address critical user needs

The DAFIS MIR / DW will satisfy many user recommendations for DAFIS Phase II and a number of System Change Requests (SCRs).

1.2. Source of DAFIS MIR / DW Data

The DAFIS MIR / DW user survey revealed that while the users have a need for summarized information, they also have a need for transaction level details. Furthermore, they want the capability to see the details which comprise the summary. Based on this need, transaction level detail is the foundation of the DAFIS MIR / DW and has been used to populate the database. The Batch Control File (BCF) is the only complete source of processed transaction level detail; therefore, it is the source of information for the DAFIS MIR / DW. From the BCF, the database has been populated with the details of all DAFIS processed transactions since July 1, 1995. The database is updated daily with data available for download and query. No historical data has been loaded for the initial phase. After the initial phase, the feasibility of adding historical data to the database will be evaluated.

In addition to transaction level details, the DAFIS MIR / DW database contains DAFIS table data. This data may be used to translate accounting code to English which allows users not familiar with accounting code to readily obtain the needed financial data.

1.3. Implementation

Since August 1995 the DAFIS MIR/DW development team has been setting up DOT Administrations as beta pilot sites with access to the DAFIS MIR/DW database. As each new Administration is implemented, the development team works closely with them to provide training and to obtain feedback regarding their impressions of the MIR/DW. The development team will continue to implement Administrations until all have been set up as beta pilot sites. User access at each Administration is based on DAFIS Mainframe security and each user must, at the very least, have DAFIS inquiry access as approved by ones Security Officer.

1.4. Data Currently Available

DAFIS MIR / DW will provide more data than is currently available through DAFIS inquiries and reports. Processed transactions are purged from the BCF when the batch containing those transactions is completely processed and error free. The Open Document File (ODF) is then the only online source of transaction level information and that data is only available for open documents and those transactions that update the ODF. The DAFIS MIR / DW will contain detailed transaction level information for all processed transactions (regardless of batch status) even though the document may never have updated the ODF or no longer resides on the BCF or ODF. This type of information could, for example, be used to provide support for General Ledger balances or other summary type financial information.

1.5. Future Development

Current literature on building data warehouses suggests that requirements cannot be completely known until the warehouse is populated with data and being used. Therefore, the development of a data warehouse must be a iterative and ongoing process utilizing feedback from the users. With the development team providing the initial training and working closely with each administration during its implementation phase, user feedback will provide information critical to successful development of the DAFIS data warehouse.

1.6. Additional DAFIS Information

Additional information on DAFIS transactions, accounting classification structure, special processes, term definitions, etc. may be found in the:

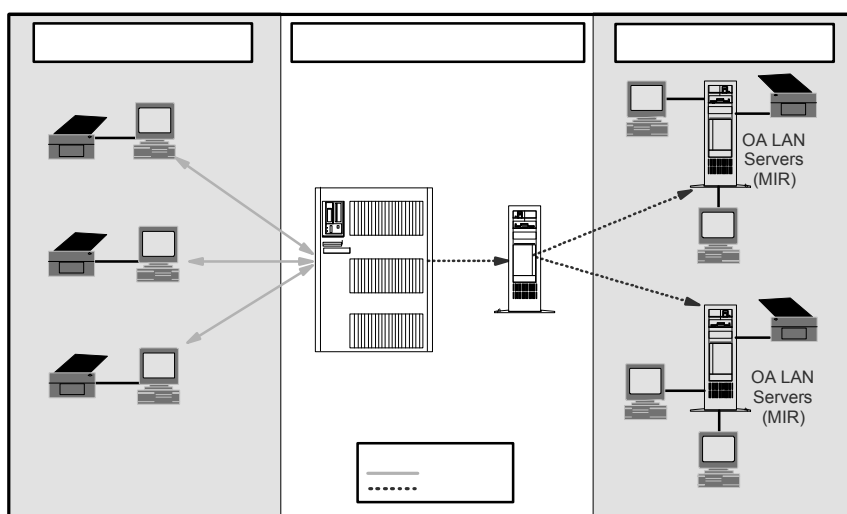
- DAFIS User Guide and Reports Guide manuals



- Documentation at <http://www.amz.jccbi.gov> AMZ Web Site, URL Address:

Chapter 2 - General System Concepts

2.1. DAFIS MIR / DW Architecture



2.2. Hardware, Software, and Network Requirements

a. Hardware - Personal Computer

- CPU (Central Processing Unit) - 80486 or better
- Memory - 8Mb or more
- Disk Space - 100 Mb or more

b. Software - Mandatory

- Microsoft® Windows (version 3.1 or better)
- Oracle SQL*Net (TCP/IP) 2.0 or above
- Microsoft® DOS 5.0 or better
- TCP/IP
- Microsoft® Win 32s
- At least one software program to access Oracle data

c. Software Optional

- Microsoft® Word (version 6.0)
- Microsoft® Excel (version 5.0) with Microsoft® Query option
- Borland® ReportSmith™ (version 2.0 that supports TCP/IP)
- Oracle SQL*Plus
- Microsoft® Access (Version 2.0)
- Any other ODBC compliant application

d. Network

- LAN connection to the Inter-Departmental Network (IDN)
- Modem with 9.6 Kbs or better
- Access to modem pool or communications server

2.2. Software

Based on user surveys, the preferred tool for the DAFIS MIR / DW is a spreadsheet with Microsoft® Excel being the most used of the spreadsheet tools. Since Microsoft® Excel contains an easy-to-use database query capability known as Microsoft® Query which can be used with the DAFIS MIR / DW database, it is the recommended tool for the initial phase. With Microsoft® Excel, users will be able to tailor reports and inquiries to meet their needs and also use the extensive graphic capabilities of Microsoft® Excel to further enhance their displays of financial information. The user may easily export data to other personal computer (PC) tools such as Microsoft® Word .

2.3. Database

Relational databases are created with the implementation of a model of multiple joined tables and allow for the logical, non-redundant arrangement of data. Data is modularized by function and purpose for greater efficiency and data security.

A database is composed of the following:

a. Tables

- A logical grouping of data elements by function, purpose, and retention period.
- Can be thought of in much the same way as a data file.
- Contain rows (records).
- Contain columns (fields).

b. Relationships

- Can be one to one or one to many.
- Must also be either mandatory or optional.

c. Translation/Lookup Tables

- A table whose sole purpose is to further identify the information represented by a code or series of codes in another table; for example, cost center, appropriation, program element, object class.
- (Largely) static information.

d. Views

- A predefined table or a joining of tables that appear to look like a table on the database.
- A “logical” table constructed from portions of several tables.
- Do not exist in the physical sense.
- Can simplify access to subsets of data that must often be accessed together, but are physically stored in separate tables.

e. Stored Procedures

- Predefined processes that exist on the file server to accomplish a specific task or tasks.
- Can be invoked by the user on demand.
- Distribute processing between the workstation and the file server.




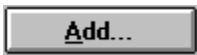

f. Data Types

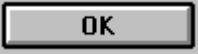
- Number. The column can contain only numbers. The format is length, precision.
- Varchar2. The column can contain alphanumeric characters up to the specified size.
- Date. The column contains date and corresponding time. For “beginning date” fields, the time is set to midnight (00:00:00). For “ending date” fields, the time is set to one second before midnight (23:59:59).

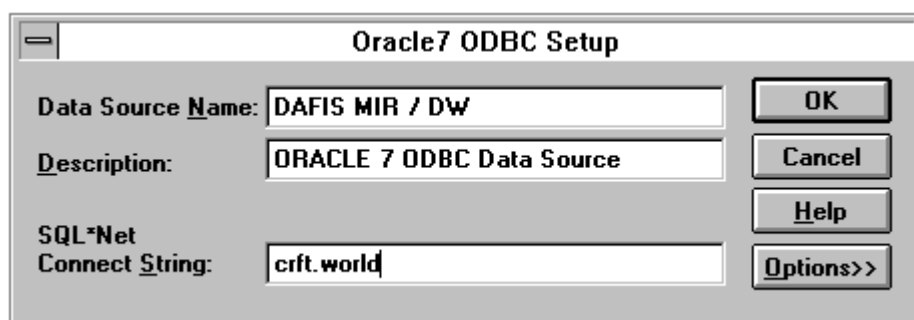
Chapter 3 - Logon Procedures

3.2. Initial Setup

The following steps must be completed before accessing DAFIS MIR / DW. These steps need to be performed only one time.

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	<p>Within the Program Manager window double-click within the Main window or on the Main icon.</p>  <p>Main</p>	The Main window will appear.
Step 2	<p>Within the Main window, double-click the Control Panel</p>  <p>Control icon. Panel</p>	The Control Panel window will appear.
Step 3	<p>Within the Control Panel Window double-click on the ODBC icon.</p>  <p>ODBC</p>	The Data Sources submenu will appear.
Step 4	<p>From the Data Sources drop down menu select DAFIS MIR / DW (Oracle 7).</p>  <p>Click on</p>	Add Data Sources submenu will appear containing installed ODBC drivers.
Step 5	<p>Select Oracle 7 from the Installed ODBC Drivers menu.</p>  <p>Click</p>	The Oracle 7 ODBC Setup dialog box appears.

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 6	<p>Type DAFIS MIR / DW in the Data Source Name field.</p> <p>Type Oracle 7 ODBC Data Source or another concise description in the Description field.</p> <p>Type the name of the server you wish to access in the SQL*Net Connect String field, i.e. crft.world.</p> <p>Click </p>	ODBC Initial setup is now complete.



Oracle7 ODBC Setup

Data Source Name:

Description:

SQL*Net
Connect String:

Chapter 4 - Software

4.1. Software Packages



This section will discuss the software package Microsoft® Query used with the DAFIS MIR / DW program

The following software packages and programming language that may be used with the DAFIS MIR / DW program will be added at a later date.

1. Borland® ReportSmith™
2. Oracle®SQL*Plus®

4.2. Microsoft® Query

Microsoft® Query is a graphical tool that allows the user to retrieve and organize data from a variety of sources, and then permits one to view, edit, and organize data. The user can insert the data into a Microsoft® Windows application file such as Microsoft® Excel. Using this tool the user is empowered to create any report or query necessary to meet information needs.

This segment explains how to query the DAFIS MIR / DW database utilizing Microsoft® Query, and produce reports in Microsoft® Excel.

a. References






For further information about any of the topics presented in this lesson, as well as additional Microsoft® Query features, consult the following:

- Microsoft® Query User Guide
- Microsoft® Excel User Guide
- Microsoft® Online Documentation
- MIR Team (Keith Nelson, phone: 405-954-6939, E-Mail: Keith_A._Nelson@mmacmail.jccbi.gov)

b. Microsoft® Query Basics





(1) Accessing DAFIS MIR / DW Tables

Microsoft® Excel is used to utilize Microsoft® Query. The following examples use step-by-step instructions.

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	Double-click on the Microsoft®  Excel icon.	The Microsoft® Excel application opens.
Step 2	Click on Data in the Menu Bar and click on the Get External Data command. Note: If Get External Data is not found in the Data menu, it must be installed using steps outlined in the next set of steps numbered 1 -5 below.	The Select Data Source dialog box appears.
Step 3	Select DAFIS MIR / DW. (Unless you have titled your data source something else in the ODBC setup). Click 	The Logon to Oracle dialog box appears.
Step 4	Type your User ID and Password. Click 	Only password will be required after initial signon. The Add Tables dialog box is displayed.
Step 5	Using the pull-down menu next to Owner, select CRAFTS. Click  . Ensure that Views and Synonyms are both selected in the Show Box. Click 	The Add Tables dialog box is displayed again.

(a) Inserting 'Get External Data' in the Data Menu

These next steps are necessary only if the Get External Data command is not found in the Data menu. (Reference Step 2 above).

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	From the Tools menu select Add-Ins .	The Add-Ins dialog box appears.
Step 2	In the Add-Ins dialog box select XLQuery (your PC may show MS Query Add-In) from the Add-Ins Available menu. Click 	
Step 3	If the Add-Ins dialog box does not show the XLQuery (or MS Query Add-In) option, click 	The Browse dialog box appears.
Step 4	From the Directories menu in the Browse dialog box select the subdirectory library and then move to the msquery subdirectory and select XLQUERY.XLA . Click 	The screen will return to the Add-Ins dialog box.
Step 5	In the Add-Ins dialog box ensure that XLQuery (or MS Query Add-In) is highlighted and has an "X" in the box to the left Click 	The screen will return to the worksheet and Get External Data will be displayed at the bottom of the Data menu.

Add Tables

Table:

ACCT_CLASS_SUMMARY
AGENCY
APPROPRIATION
BANK
COST_CENTER
FUND_CONTROL
FUND_USE_TRANS
FUNDING_TRANS
GL_DETAIL
GL_SUMMARY

Owner: CRAFTS

Database:

Buttons: Add, Close, Options...

Table Options

Show:

☐ Tables

☒ Views

☐ System Tables

☒ Synonyms

Buttons: OK, Cancel, Refresh

Add Tables





Table:

ACCT_CLASS_SUMMARY
AGENCY
APPROPRIATION
BANK
COST_CENTER
FUND_CONTROL
FUND_USE_TRANS
FUNDING_TRANS
GL_DETAIL
GL_SUMMARY

Owner: CRAFTS

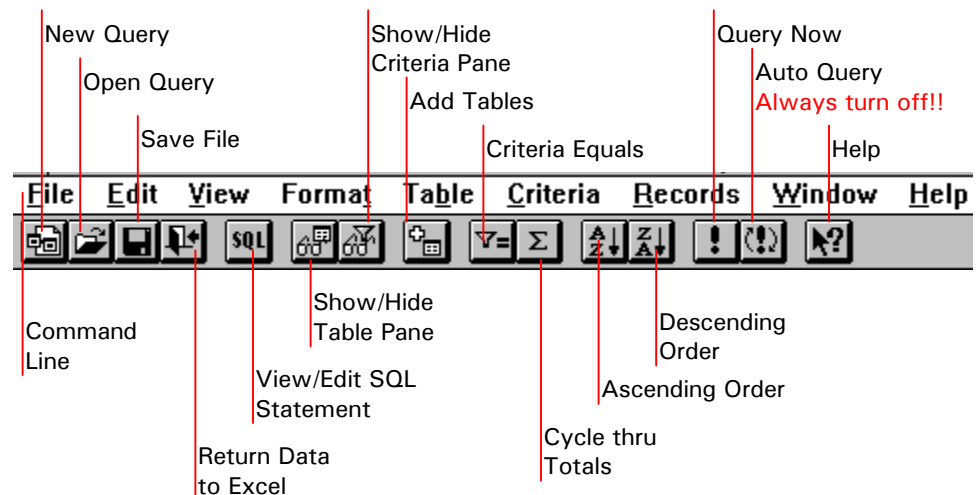
Database:

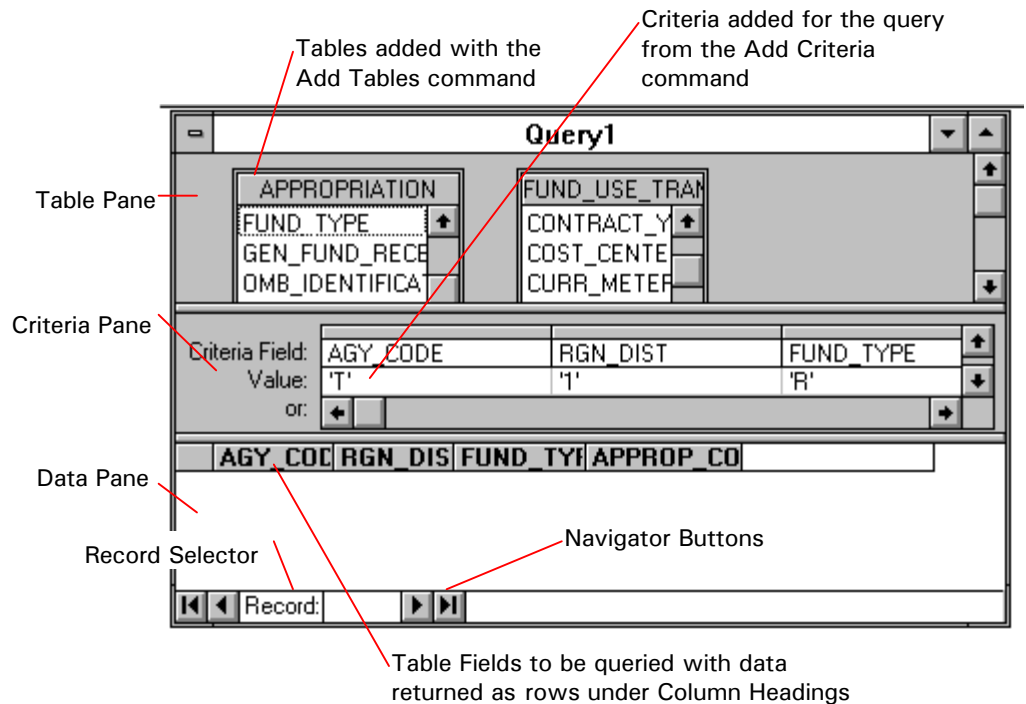
Buttons: Add, Close, Options...

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 6	Select the desired table. Click 	Each table is displayed in the Table Pane of the Query window when added. Repeat if you wish to select/add other tables.
Step 7	Click 	The Add Tables box disappears and the tables you have selected/added will appear in the Table Pane of the Query window.
Step 8 Attention!!	TURN OFF AUTO QUERY!!! Click the Auto Query button!!!!  This button should appear dark gray (off), not light gray (on).	 This Auto Query button will default to light gray (on) each time Microsoft® Query is started. You must turn it off (dark gray) each time you start Microsoft® Query!
Step 10 (Optional)	You may wish to enlarge the table boxes that have appeared in the Table Pane of the Query window.	This will allow you to read the complete names of the fields.

(2) Understanding the Query Window

After you add tables and close the Add Tables dialog box, you will see the Query window. You use this window to design, edit, and run your query.





(3) Helpful Tips for Using Microsoft® Query

Some of the most important things to be remembered when working in Microsoft® Query:



This button always defaults to “on” (light gray). Each time you enter Microsoft® Query or begin a new query ensure that this button is turned “off” (dark gray).



Never minimize the Microsoft® Query window. Use the **Alt + Tab** keys to move to other applications that are open behind Microsoft® Query. Each time these keys are pressed the symbol and title of each of the other open applications will appear in a box on the screen. When the application to which you wish to go appears, release the buttons and that application will maximize.



Microsoft Query

Never exit Microsoft® Query without returning data to Microsoft® Excel. Press



to return data or choose Return Data to Excel from the File menu.




You cannot access other open applications while a query is executing.



Know what results you expect to be returned. This comes with a workable knowledge of the database.

(4) Selecting Fields (Data to be Displayed as Columns)

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	<p>Double click on fields desired or you may drag and drop  .</p> <p>By double clicking on * at the top of the list of fields, all table fields will be selected and displayed.</p>	The selected fields will appear as column headings in the Data Pane and will be added to the right in the order selected.

(5) Moving Columns


STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	Select the column you want to move by clicking its column heading.	The column heading will be highlighted.
Step 2 (Optional)	To select a block of columns, select the first column in the block, then hold down the SHIFT key and click the column heading of the last column in the block.	All column headings in the block will be highlighted.
Step 3	Click the column heading again and drag the column to its new location.	If multiple columns have been selected, click any of their column headings and drag the entire group.


(5) Specifying Criteria


NOTE: To specify criteria you must have added tables to the Table Pane.

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	From the Criteria menu, select Add Criteria	The Add Criteria dialog box is displayed as illustrated in the example below.




Type the value here

Pressing this button  will start a search for values which may take a long time. **Using this button is not recommended!**

Step 2	Using the Field pull-down menu, select a field to be used as the criteria.	
Step 3	Select the operator you wish to use from the Operator pull-down menu	
Step 4	Tab to the Value box. Type the value you wish to use as the criteria, i.e., if your criteria field is agency code, you would select the number or letter of the agency code.	Use upper case and make sure you have access to that field.
Step 5	Click 	The Criteria Pane appears in the center of the Query window and the Add Criteria box remains.



STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 6	If you wish to add more criteria, click next to And in the Add Criteria dialog box and repeat Steps 2 through 5.	
Step 7	Click 	NOTE: The more restrictive your criteria, the faster query will execute and return a more manageable data set!! Also, for efficiency, consider indexes and arrange your criteria in the order of an index.

(6) Sorting Data

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	Click on the heading of the column by which data is to be sorted.	
Step 2	Click  to sort in ascending order; click  to sort in descending order.	
Step 3	Click 	Note: If this step (Sorting Data) is not taken before the initial query, the data will not be sorted until data is re-queried.



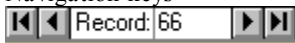

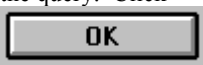

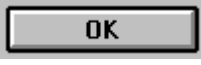
-OR-

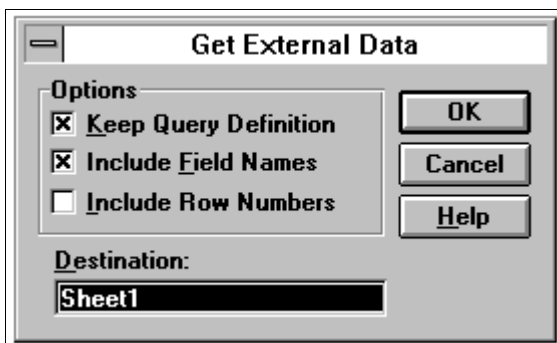
To sort multiple columns:

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	From the Records menu select Sort	The Sort dialog box will appear as shown below.
Step 2	Select the name of the column you wish to sort from the Column pull-down menu.	
Step 3	Select either Ascending order or Descending order by clicking on the radio button to the left of each.	Each column name selected will appear in the Sorts in Query box.
Step 4	Click 	
Step 5	Click 	

(7) Executing Query

NOTE: The more restrictive your criteria, the faster query will execute and return a more manageable data set!!

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	Click Query Now 	After query is complete data appears in the Data Pane of the Query window. Note: Another application cannot be accessed while query is running (as long as  appears on screen). See list of reasons below that may slow down a query. Go to Navigation keys  at bottom left on screen and move to bottom of data. Note how many records have been returned.
Step 2 (Optional)	From the File menu select Save or click  Type a name for the query. Click 	This step is not necessary unless you wish to save the query to use later.
Step 3	From the File menu, select Return Data to Excel or click 	Get External Data dialog box is displayed as shown below.
Step 4	Ensure that Keep Query Definition and Include Field Names are selected. Click 	The data is placed in a Microsoft® Excel spreadsheet. Note: Maximum number of lines that may be returned to Microsoft® Excel is 16,384.



Any of the following reasons could be the explanation for a query that is taking a long time to complete.

- A large amount of data is being returned.
- The query may not be efficient or has gone into a loop.
- Too much traffic on network.
- Your PC resources are overloaded
- Communications may have been interrupted (if only for an instant) somewhere between your PC (client) and the DAFIS MIR / DW client server in Oklahoma City.

To recover from these circumstances it may be necessary to:

- Review each step used to prepare the query to ensure each is valid. Also, criteria established may need to be made more specific and/or rearranged in the sequence of an index.
- Reboot your PC. If you kill the query with a soft or hard boot the present query and all current work (not previously saved) on every application running behind Microsoft® Query will not be saved. Also, lost clusters may be created requiring maintenance on your PC. If your session is killed (terminated) you can usually close the query (small '-') and return to Microsoft® Excel , but you must also close Microsoft® Excel to break the Dynamic Data Exchange (DDE) link and then relaunch Microsoft® Excel and Microsoft® Query . Please contact the MIR Team (Keith Nelson, phone: 405-954-6939, E-Mail: Keith_A._Nelson@mmacmail.jccbi.gov) and request your session be terminated.

(8) Joining DAFIS MIR/DW Tables

In the event it becomes necessary to include fields in a query that are not represented on the same table or in a stored view, two tables must be joined (related) so that fields in both tables may be used in a query in a meaningful way.

Joins on tables that are frequently used have been developed and stored in the Data Warehouse as complex 'Views' (See Appendix A). Whenever possible, complex views should be used rather than creating new joins. Complex views should not be used in joins.

To be able to perform 'Joins', common fields in both views/tables are connected to link the views/tables as one. Characteristics of the joining or connecting fields are:

- Connecting field(s) must exist on both views/tables.
- Connecting field(s) normally have the same or similar names.
- Connecting field(s) normally have the same datatype (i.e., numeric or alpha/numeric).
- Connecting field(s) will uniquely define one record on one of the joining views/tables. This is essential to insure complete and relevant data is obtained from the join. Please refer to Appendix D, Unique Field(s) for Individual Views/Tables.

Having the same field name does not necessarily indicate the fields contain “like” information. For example, the `FUND_USE_TRANS` table and the `APPROPRIATION` table both contain the field `PROCESS_DATE`. However, the `PROCESS_DATE` field in the `FUND_USE_TRANS` table contains the date the transaction was processed and the `PROCESS_DATE` field in the `APPROPRIATION` table is the date Table R07 was last updated. The fields do not contain data with the same meaning. Field names from the source tables need not have the same field name, but **MUST** be the same kind of data to be of any value. For example, don’t join `AGY_CODE` directly to `APPROP_CODE`, that doesn’t make sense; but you might join `AGY_CODE` with `AGY_CODE`.

Tables related in the Table Pane of a Query window are called Joins.

Inner Joins	These contain records from both tables only when there are matching values in both joined fields. Both one-to-one and one-to-many relationships are inner joins.
Outer Joins or Left/Right Joins	These use all fields from one table but only matching fields from the other table. This can only be used in a one-to-many relationship.

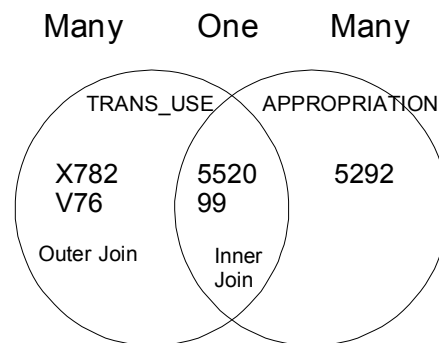
Inner and Outer Joins

Tables

TRANS_USE	APPROPRIATION
5520	99
X782	5520
V76	5292
99	

Inner Join Results: 5520
99

Outer Join Results: 5520
99
X782
V76




Two tables or queries that have established relationships and are chosen as data sources for the query will be joined using the established relationship.

There are two ways to join tables together in Microsoft® Query:

1. Drag and Drop
2. Command Line

(a) Method 1 - Drag and Drop



This method may be used for inner joins only. Returns only rows of data that appear on both or all tables joined.

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	Scroll down in the first table until the first field to be joined is visible.	
Step 2	Scroll down in the second table until the second field to be joined is visible.	
Step 3	Click and hold the primary mouse button  over the selected field in the first table.	A rectangular box appears.
Step 4	Drag the box over to the selected field in the second table. Release the mouse button.	A line with a dot at each end connecting the two fields appears between the two tables.
Step 5 (Optional)	If you wish to change the inner join just created to an outer join: Double click on the connecting line and the Joins dialog box will appear and you may create an outer join.	See Step 5 of Method 2 - Command Line below.

(b) Method 2 - Command Line

The second method may be used for either inner or outer joins. In other words, if all rows from one table are to be seen regardless of whether they appear on both tables, use the following method:

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	From the Table menu, select Joins.	The Joins dialog box appears
Step 2	From the left pull-down menu, select the table name and joining field.	
Step 3	From the right pull-down menu, select the other table name and joining field.	
Step 4	From the Operator pull-down menu, select =.	
Step 5	For an inner join, click the Number 1 Radio Button. For an outer join, click either Number 2 or 3 Radio Button. (Select the button that selects all fields from one table and only the matching fields from the other table. Click	Outer join or inner join will be included in the text in the Joins in Query box in the Joins dialog box.

		
Step 6	Click 	A line with a dot on one end and an arrow on the other connecting the two fields appears between the two tables.

Chapter 5 - Beta Test Instructions

5.1. Definition

A beta test is a thorough analysis of a software package in a production environment using actual transactions. It is intended to determine whether an implemented system fulfills the functional purpose determined by its users. The DAFIS MIR / DW beta test is an evaluation of the foundation of the department's new data warehouse. The purpose of the test is two-fold; (1) to evaluate the initial phase of development and (2) to look to the system's potential to satisfy financial information needs in subsequent development phases.

5.2. Test Plan

All administrations will have an opportunity to participate in the beta test scheduled until Summer 1996. The development team will work closely with each administration for approximately one month to assist with:

- establishing connectivity
- learning the system
- beta testing

Suggestions for improvements to the system will be made by the users via E-Mail/CC:Mail, phone or FAX. The development team will utilize these suggestions to refine the system to meet user expectations.

5.3. User Responsibilities

During the beta test, users will have the following responsibilities:

- Become familiar with:
 - - data in the warehouse
 - - accessing the data warehouse
 - - executing queries in the selected software tools
- Verify the completeness and accuracy of their administration's data
- Determine if the system is useful to their administration. If not, submit recommendations to make it useful.
- Determine how the system could be improved to benefit their administration.

5.4. DAFIS MIR / DW Development Team Responsibilities

The DAFIS MIR / DW Development Team will assist users by:

- Providing initial training sessions for both system administrators and users
- Providing onsite support during the first week of beta testing
- Responding to administration suggestions for improvements

Appendix A

Views

VIEW NAMES	TABLE NAMES	Similar to DAFIS
ACCT_CLASS_SUMMARY	T_ACCT_CLASS_SUMMARY, SECU_ACC	ACF, FSF
AGENCY	T_AGENCY_TABLE	T01
ALL_TRANS	T_FUNDING_TRANS, T_FUND_USE_TRANS, T_OTHER_TRANS, SECU_ACC	FMT 01-14, BCF, RIS NO: I-A, I-H
APPROPRIATION	T_APPROPRIATION, SECU_ACC	R07
BANK	T_BANK	FOD
DOCUMENT_SUMMARY	T_DOCUMENT_SUMMARY, SECU_ACC	ODF, IDF
COST_CENTER	T_COST_CTR_TABLE, SECU_ACC	T06
FUND_CONTROL	T_FUND_CONTROL, SECU_ACC	RT1
FUND_PAY	T_FUND_USE_TRANS, T_VENDOR, T_BANK, T_TERMS, SECU_ACC	RIS NO: I-A, I-C
FUND_USE_GL	T_FUND_USE_TRANS, T_GL_DETAIL, T_GL_SUMMARY, SECU_ACC	FMT 03-14, BCF; RIS NO: I-A, I-H
FUND_USE_TRANS	T_FUND_USE_TRANS, SECU_ACC	FMT 03-14, BCF, RIS NO: I-A, I-H
FUNDING_GL	T_FUND_USE_TRANS, T_GL_DETAIL, T_GL_SUMMARY, SECU_ACC	FMT 03-14, BCF, RIS NO: I-A, I-H
FUNDING_TRANS	T_FUNDING_TRANS, SECU_ACC	FMT 03-14, BCF, RIS NO: I-A, I-H
GL_DETAIL	T_GL_DETAIL	GL-FILE Enhanced
GL_SUMMARY	T_GL_SUMMARY, SECU_ACC	GL-FILE

VIEW NAMES	TABLE NAMES	Similar to in DAFIS
GL_TRANS	T_GL_DETAIL, T_GL_SUMMARY, T_FUND_USE_TRANS, T_FUNDING_TRANS, T_OTHER_TRANS, SECU_ACC	ACF, FSF, ODF, IDF, BCF; RIS NO: I-A, I- H, I-O, I-C; GL-FILE
INVEST_TRK_MODULE	T_INVEST_TRK_MODULE, SECU_ACC	ITM
OBJECT_CLASS	T_OBJECT_CLASS	R08, T24
PROGRAM_ELEMENT	T_PROGRAM_ELEMENT, SECU_ACC	R06
STANDARD_GL	T_STANDARD_GL	T21
TERMS	T_TERMS	T42
VENDOR	T_VENDOR, SECU_ACC	T16, RIS NO: I-A, I- H.1, I-C
VEND_TRANS	T_FUND_USE_TRANS, T_VENDOR, SECU_ACC	ODF, IDF, BCF; RIS NO: I-A, I-H.1, I-C

Appendix B

Tables

TABLE NAMES

MIR_USER

SECU_ACC

T_ACCT_CLASS_SUMMARY

T_AGENCY_TABLE

T_APPROPRIATION

T_BANK

T_COST_CTR_TABLE

T_DOCUMENT_SUMMARY

T_FUNDING_TRANS

T_FUND_CNTL

T_FUND_USE_TRANS

T_GL_DETAIL

T_GL_SUMMARY

T_INVEST_TRK_MODULE

T_MASS_CHANGE

T_OBJECT_CLASS

T_OTHER_TRANS

T_PROGRAM_ELEMENT

T_STANDARD_GL

T_TERMS

T_VENDOR

Appendix C

Fields

FIELD/COLUMN NAME(S)	TYPE & LENGTH	TABLE(s) OR VIEW(s)
ACCESS_TYPE	VARCHAR2 1	MIR_USER
ACCOUNT_HOLDER	VARCHAR2 22	VENDOR FUND_PAY VEND_TRANS
ACCOUNT_NUMBER	VARCHAR2 17	VENDOR FUND_PAY VEND_TRANS
ACCOUNT_TYPE	VARCHAR2 1	VENDOR FUND_PAY VEND_TRANS
ACCTS_RCV	NUMBER 15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
ACH_EFT_FLAG	VARCHAR2 1	VENDOR FUND_PAY VEND_TRANS
ACS_CNTL_NUM	NUMBER 10	(K1)ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUNDING_TRANS FUND_USE_TRANS FUND_PAY GL_SUMMARY OTHER_TRANS VEND_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
ACS_DEL_CNT	NUMBER 10	MASS_CHANGE

ACS_UPD_CNT	NUMBER	10	MASS_CHANGE
ADDRESS1	VARCHAR2	35	FUND_PAY VEND_TRANS
ADDRESS2	VARCHAR2	35	FUND_PAY VEND_TRANS
ADDRESS3	VARCHAR2	30	FUND_PAY VEND_TRANS
ADDRESS4	VARCHAR2	30	FUND_PAY VEND_TRANS
ADDRESS_LINE1	VARCHAR2	35	VENDOR
ADDRESS_LINE2	VARCHAR2	35	VENDOR
ADDRESS_LINE3	VARCHAR2	30	VENDOR
ADDRESS_LINE4	VARCHAR2	30	VENDOR
ADDRESS_NAME	VARCHAR2	35	VENDOR
ADV_PAID	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS FUND_PAY VEND_TRANS GL_TRANS ALL_TRANS FUND_USE_GL
ADV_RCV	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS FUND_PAY VEND_TRANS GL_TRANS ALL_TRANS FUND_USE_GL
AE_UNPAID	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS FUND_PAY VEND_TRANS GL_TRANS ALL_TRANS FUND_USE_GL
AGENCY_NAME	VARCHAR2	47	AGENCY_TABLE

AGY_CODE	VARCHAR2	1	SECU_ACC ACCT_CLASS_SUMMARY (K1)AGENCY_TABLE APPROPRIATION COST_CTR_TABLE DOCUMENT_SUMMARY FUNDING_TRANS FUND_CNTL FUND_PAY FUND_USE_TRANS INVEST_TRK_MODULE MASS_CHANGE OBJECT_CLASS OTHER_TRANS PROGRAM_ELEMENT STANDARD_GL VEND_TRANS VENDOR GL_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL FUND_PAY VEND_TRANS
ALLOTTEE	VARCHAR2	1	FUNDING_TRANS GL_TRANS ALL_TRANS
ALLOT_FUND_CNTL	VARCHAR2	3	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_PAY FUND_USE_TRANS GL_SUMMARY INVEST_TRK_MODULE OTHER_TRANS VEND_TRANS
ALLOT_FUND_CNTL	VARCHAR2	2	FUND_CNTL
ALLOT_FUND_CNTL_IND	VARCHAR2	3	MASS_CHANGE
ALLOT_LEVEL_IND	VARCHAR2	1	FUND_CNTL
ALLOT_QTR_1	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUNDING_TRANS
ALLOT_QTR_2	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUNDING_TRANS
ALLOT_QTR_3	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUNDING_TRANS
ALLOT_QTR_4	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUNDING_TRANS

AMOUNT	NUMBER	15.2	FUNDING_TRANS FUND_USE_TRANS FUND_PAY OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS VEND_TRANS
APPROP_CODE	VARCHAR2	4	ACCT_CLASS_SUMMARY APPROPRIATION FUNDING_TRANS FUND_CNTL FUND_USE_TRANS GL_SUMMARY INVEST_TRK_MODULE MASS_CHANGE OTHER_TRANS PROGRAM_ELEMENT ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
APPROP_CODE_LIM	VARCHAR2	3	ACCT_CLASS_SUMMARY APPROPRIATION FUNDING_TRANS FUND_CNTL FUND_USE_TRANS GL_SUMMARY INVEST_TRK_MODULE MASS_CHANGE OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
APPROP_CODE_NAME	VARCHAR2	70	APPROPRIATION
APPROVED_BY	VARCHAR2	30	MIR_USER
AR_IOTV_IND	VARCHAR2	16	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
AUTH_DISB	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS

BAL_UNCOLLECTED	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
BANK	VARCHAR2	36	FUND_PAY
BANK_ADDRESS1	VARCHAR2	36	FUND_PAY
BANK_ADDRESS2	VARCHAR2	36	FUND_PAY
BANK_ADDRESS3	VARCHAR2	36	FUND_PAY
BANK_ADDRESS4	VARCHAR2	36	FUND_PAY
BANK_ADDRESS_LINE_1	VARCHAR2	36	BANK
BANK_ADDRESS_LINE_2	VARCHAR2	36	BANK
BANK_ADDRESS_LINE_3	VARCHAR2	36	BANK
BANK_ADDRESS_LINE_4	VARCHAR2	36	BANK
BANK_ADDRESS_NAME	VARCHAR2	36	BANK
BANK_ID	VARCHAR2	9	BANK FUND_PAY ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
BATCH_ID	VARCHAR2	9	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
BEGINNING_CR_BAL	NUMBER	15.2	GL_SUMMARY
BEGINNING_DR_BAL	NUMBER	15.2	GL_SUMMARY
BILL_NUMBER	VARCHAR2	11	FUND_USE_TRANS
BILLED_REV	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
BUDGETARY_FLAG	VARCHAR2	1	STANDARD_GL
CAPITALIZED_AMT	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
CARRIED_FWD_PLANS	NUMBER	15.2	FUNDING_TRANS ALL_TRANS GL_TRANS
CATEGORY_CODE	VARCHAR2	1	APPROPRIATION

CERTIFIER_ID	VARCHAR2	3	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
CHECK_NUM	NUMBER	10	FUND_USE_TRANS
CLOSE_FLAG	VARCHAR2	1	COST_CTR_TABLE
CLOSING_DATE	DATE		INVEST_TRK_MODULE
COLLECTIONS	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
COMMIT	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
COMPUTATION_DATE	DATE		FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
CONTRACT_MO	VARCHAR2	2	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
CONTRACT_NUMBER	VARCHAR2	40	INVEST_TRK_MODULE
CONTRACT_YEAR	VARCHAR2	2	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
COST_CENTER	VARCHAR2	6	SECU_ACC ACCT_CLASS_SUMMARY COST_CTR_TABLE FUNDING_TRANS FUND_CNTL FUND_USE_TRANS GL_SUMMARY MASS_CHANGE

			OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
COST_CENTER_NAME	VARCHAR2	21	COST_CTR_TABLE
COST_EST_CYTD	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
CURQTR_SUBQTR_IND	VARCHAR2	2	STANDARD_GL
CURR_CREDIT_AMOUNT	NUMBER	15.2	GL_SUMMARY
CURR_DEBIT_AMOUNT	NUMBER	15.2	GL_SUMMARY
CURR_METER_READING	NUMBER	9	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
CURR_NONCURR_IND	VARCHAR2	2	STANDARD_GL
CURR_YR	NUMBER	4	DOCUMENT_SUMMARY
DAY	NUMBER	2	FUND_PAY
DEBIT_CREDIT_FLAG	VARCHAR2	1	STANDARD_GL
DEFAULT_PMT_AR	NUMBER	15.2	INVEST_TRK_MODULE
DEP_INT	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
DESCRIPTION	VARCHAR2	100	OTHER_TRANS
DISCOUNT_EARNED_AMT	NUMBER	15 2	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
DISCOUNT_LOST_AMT	NUMBER	15 2	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS

DOC_CNTL_NUM	NUMBER	10	DOCUMENT_SUMMARY FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
DOC_FIS_YEAR	VARCHAR2	2	DOCUMENT_SUMMARY FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
DOC_ID	VARCHAR2	16	INVEST_TRK_MODULE
DOC_NUMBER	VARCHAR2	9	DOCUMENT_SUMMARY FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
DOC_REF_METER_NUM	VARCHAR2	16	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
DOC_SUFFIX	VARCHAR2	3	DOCUMENT_SUMMARY FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
DOC_TYPE	VARCHAR2	2	DOCUMENT_SUMMARY FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
DR_CR_FLAG	VARCHAR2	1	GL_DETAIL GL_SUMMARY FUND_USE_GL

			FUNDING_GL GL_TRANS
DUE_DATE	DATE		INVEST_TRK_MODULE
EFF_DATE	DATE		FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
ENERGY_CONV_CODE_1	VARCHAR2	1	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
ENERGY_CONV_CODE_2	VARCHAR2	1	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
EXCL_DISCOUNT_AMT	NUMBER	15 2	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
EXPND	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
EXP_APPROP	VARCHAR2	1	APPROPRIATION
F_E_APPROV_EST	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
F_E_CURR_EST	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY

			VEND_TRANS
F_E_MANHR_EST	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
F_E_ORG_EST	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
FACILITY_LOCATION	VARCHAR2	4	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
FACILITY_TYPE	VARCHAR2	6	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
FILLED_ORDER_UNCOLL	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
FINANCIAL_ACT_CODE	VARCHAR2	2	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
FINAN_NONFINAN_IND	VARCHAR2	2	STANDARD_GL
FIRST_NAME	VARCHAR2	20	MIR_USER
FIS_YEAR	NUMBER	4	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_USE_TRANS
FIS_YEAR_MONTH	NUMBER	4	GL_DETAIL GL_SUMMARY
FUND_AUTHORITY_QTR_1	NUMBER	15.2	FUNDING_TRANS ALL_TRANS GL_TRANS

FUND_AUTHORITY_QTR_2	NUMBER	15.2	FUNDING_TRANS ALL_TRANS GL_TRANS
FUND_AUTHORITY_QTR_3	NUMBER	15.2	FUNDING_TRANS ALL_TRANS GL_TRANS
FUND_AUTHORITY_QTR_4	NUMBER	15.2	FUNDING_TRANS ALL_TRANS GL_TRANS
FUND_CONTROL_NAME	VARCHAR2	25	FUND_CNTL
FUND_CONTROL_ORG	VARCHAR2	10	FUND_CNTL
FUND_CONTROL_PHONE	VARCHAR2	10	FUND_CNTL
FUND_CONTROL_PURPOSE	VARCHAR2	50	FUND_CNTL
FUND_TYPE	VARCHAR2	1	APPROPRIATION ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
GEN_FUND_RECEIPT	NUMBER	5	APPROPRIATION
GL_ACCT	VARCHAR2	4	GL_DETAIL GL_SUMMARY STANDARD_GL FUND_USE_GL FUNDING_GL GL_TRANS
GL_ACCT_NAME	VARCHAR2	20	STANDARD_GL
GL_CNTL_NUM	NUMBER	10	GL_DETAIL (K1)GL_SUMMARY
GL_UPDATE_FLAG	VARCHAR2	1	INVEST_TRK_MODULE
GLS_DEL_CNT	NUMBER	10	MASS_CHANGE
GLS_UPD_CNT	NUMBER	10	MASS_CHANGE
GROSS_REVENUE	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
GSA_ADDRESS_CODE	VARCHAR2	21	COST_CTR_TABLE
GUARANTOR_NAME	VARCHAR2	7	INVEST_TRK_MODULE
HOLDBACK	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY

			VEND_TRANS
HOME_NODE	VARCHAR2	25	MIR_USER
HOURS	NUMBER	11	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
IMPREST_FUND_CASHIER	VARCHAR2	9	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
INDUSTRY_SEGMENT	VARCHAR2	2	INVEST_TRK_MODULE
INPUT_AGY_CODE	VARCHAR2	1	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
INPUT_FMT_CODE	VARCHAR2	2	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
INPUT_RGN_DIST	VARCHAR2	1	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
INTEREST_PEN_AMT	NUMBER	15 2	INVEST_TRK_MODULE ALL_TRANS FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
INTEREST_RATE	NUMBER	5	INVEST_TRK_MODULE
INTERST_PEN_AMT	NUMBER	15 2	FUND_USE_GL FUND_USE_TRANS
INV_CUST_ACCT_NUM	VARCHAR2	22	FUND_USE_TRANS ALL_TRANS FUND_USE_GL

			GL_TRANS FUND_PAY VEND_TRANS
IOTV_NUMBER	VARCHAR2	9	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
IP_ADDRESS	VARCHAR2	15	MIR_USER
JOB_NUMBER	VARCHAR2	11	MASS_CHANGE
LAST_ACCESS_DATE	DATE		MIR_USER
LAST_NAME	VARCHAR2	30	MIR_USER
LOCK_BOX_NUMBER	VARCHAR2	17	VENDOR FUND_PAY VEND_TRANS
MAC_CODE	VARCHAR2	2	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_USE_TRANS GL_SUMMARY OTHER_TRANS STANDARD_GL ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
MANHR_EST_CYTD	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
MATURITY_DATE	DATE		INVEST_TRK_MODULE
METER_OTHER_ID	VARCHAR2	10	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
NET	NUMBER	2	FUND_PAY
NO_DISCOUNT_AMT	NUMBER	15 2	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS

OBJ_CLASS	VARCHAR2	4	GL_SUMMARY ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
OBJ_CLASS_ABBREV	VARCHAR2	10	OBJECT_CLASS
OBJ_CLASS_MAJ_NAME	VARCHAR2	20	OBJECT_CLASS
OBJ_CLASS_NAME	VARCHAR2	21	OBJECT_CLASS
OBJECT_CLASS	VARCHAR2	4	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_CNTL FUND_USE_TRANS MASS_CHANGE OBJECT_CLASS OTHER_TRANS
OFFICE_CONTACT	VARCHAR2	35	AGENCY_TABLE
OLD_AGY_CODE	VARCHAR2	1	MASS_CHANGE
OLD_ALLOT_FUND_CNTL_IND	VARCHAR2	3	MASS_CHANGE
OLD_APPROP_CODE	VARCHAR2	4	MASS_CHANGE
OLD_APPROP_CODE_LIM	VARCHAR2	3	MASS_CHANGE
OLD_COST_CENTER	VARCHAR2	6	MASS_CHANGE
OLD_JOB_NUMBER	VARCHAR2	11	MASS_CHANGE
OLD_OBJECT_CLASS	VARCHAR2	4	MASS_CHANGE
OLD_PROGRAM_ELEMENT	VARCHAR2	6	MASS_CHANGE
OLD_RGN_DIST	VARCHAR2	1	MASS_CHANGE
OLD_SYSTEM_CODE	VARCHAR2	1	MASS_CHANGE
OMB_IDENTIFICATION	VARCHAR2	11	APPROPRIATION
OPERATOR_NAME	VARCHAR2	40	INVEST_TRK_MODULE
ORIGINAL_MORTGAGE	NUMBER	15.2	INVEST_TRK_MODULE
ORIG_CONSTR_LOANS	NUMBER	15.2	INVEST_TRK_MODULE
OWNER_NAME	VARCHAR2	40	INVEST_TRK_MODULE
PAYMENT_AMOUNT	NUMBER	15.2	INVEST_TRK_MODULE
PAYMENT_DATE	NUMBER	4	INVEST_TRK_MODULE
PAYMENT_FREQUENCY	VARCHAR2	1	INVEST_TRK_MODULE
PE_EXPANDED_NAME	VARCHAR2	70	PROGRAM_ELEMENT

PENALTY_INT	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
PERCENT	NUMBER	5	FUND_PAY
PHONE	VARCHAR2	10	MIR_USER
PHONE_NUMBER	VARCHAR2	12	AGENCY_TABLE
PLAN_LEVEL2_IND	VARCHAR2	1	ACCT_CLASS_SUMMARY GL_SUMMARY FUNDING_TRANS FUND_USE_TRANS OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
PLAN_LEVEL3_IND	VARCHAR2	1	ACCT_CLASS_SUMMARY GL_SUMMARY FUNDING_TRANS FUND_USE_TRANS OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
PLAN_QTR_1	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
PLAN_QTR_2	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
PLAN_QTR_3	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
PLAN_QTR_4	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
PLANNED_AMOUNT	NUMBER	15.2	ACCT_CLASS_SUMMARY
PRIOR_YEAR_PLANS	NUMBER	15.2	FUNDING_TRANS ALL_TRANS GL_TRANS
PRIOR_YR_ADJ_FLAG	VARCHAR2	1	APPROPRIATION
PROCESS_DATE	DATE		AGENCY_TABLE APPROPRIATION COST_CTR_TABLE

			FUNDING_TRANS FUND_CNTL FUND_USE_TRANS INVEST_TRK_MODULE MASS_CHANGE OBJECT_CLASS OTHER_TRANS PROGRAM_ELEMENT ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
PROGRAM_ELEMENT	VARCHAR2	6	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_CNTL FUND_USE_TRANS GL_SUMMARY INVEST_TRK_MODULE MASS_CHANGE OTHER_TRANS PROGRAM_ELEMENT ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
PROG_ELEM_NAME	VARCHAR2	21	PROGRAM_ELEMENT
PROJECT_NUMBER	VARCHAR2	9	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_USE_TRANS GL_SUMMARY OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
PUB_GOVT_IND	VARCHAR2	1	STANDARD_GL
PUBLIC_GOVT_IND	VARCHAR2	1	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_USE_TRANS GL_SUMMARY ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
PY_RECOVERY	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS

			FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
PYR_EXCLUSION_FLAG	VARCHAR2	1	PROGRAM_ELEMENT
PYR_FLAG	VARCHAR2	1	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
R224_IND	VARCHAR2	1	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
RATE	NUMBER	6	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
RCD_TYPE	VARCHAR2	1	OTHER_TRANS
REASON_CODE	VARCHAR2	1	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
REIMB_AGREE_FLAG	VARCHAR2	1	APPROPRIATION FUND_USE_TRANS OTHER_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
REPORT_NUMBER	VARCHAR2	35	INVEST_TRK_MODULE
RGN_ADDRESS_LINE_1	VARCHAR2	25	AGENCY_TABLE
RGN_ADDRESS_LINE_2	VARCHAR2	25	AGENCY_TABLE
RGN_ADDRESS_LINE_3	VARCHAR2	25	AGENCY_TABLE
RGN_CONTACT	VARCHAR2	3	AGENCY_TABLE
RGN_DIST	VARCHAR2	1	SECU_ACC ACCT_CLASS_SUMMARY AGENCY_TABLE APPROPRIATION COST_CTR_TABLE DOCUMENT SUMMARY

			FUNDING_TRANS FUND_CNTL FUND_USE_TRANS GL_SUMMARY INVEST_TRK_MODULE MASS_CHANGE OBJECT_CLASS OTHER_TRANS PROGRAM_ELEMENT STANDARD_GL VENDOR ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
RGN_NAME	VARCHAR2	25	AGENCY_TABLE
RISK_FACTOR	VARCHAR2	2	INVEST_TRK_MODULE
ROLES	VARCHAR2	7	MIR_USER
RTG_SYMBOL	VARCHAR2	7	MIR_USER
SCAC_CODE	VARCHAR2	4	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
SCHEDULE_CERT_DEP	VARCHAR2	7	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
SEGMENT_DESCRIPTION	VARCHAR2	40	INVEST_TRK_MODULE
SELECT_CODE	VARCHAR2	2	INVEST_TRK_MODULE
SOURCE_CODE	VARCHAR2	1	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_USE_TRANS GL_SUMMARY OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
STATE_SPON_IND	VARCHAR2	1	APPROPRIATION
STATISTICAL_DATA_1	VARCHAR2	9	FUND_USE_TRANS ALL_TRANS

			FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
STATISTICAL_DATA_2	VARCHAR2	9	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
STOP_PAY_IND	VARCHAR2	1	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
SYSTEM_CODE	VARCHAR2	1	ACCT_CLASS_SUMMARY FUNDING_TRANS FUND_USE_TRANS GL_SUMMARY MASS_CHANGE OTHER_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
TBL_ID	VARCHAR2	3	MASS_CHANGE
TC_STATUS_CODE	VARCHAR2	1	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
TEMP_TBLS	VARCHAR2	25	MIR_USER
TEMP_TBLS_QUOTA	VARCHAR2	25	MIR_USER
TERM_USER_ID	VARCHAR2	8	AGENCY_TABLE APPROPRIATION COST_CTR_TABLE FUNDING_TRANS FUND_CNTL FUND_USE_TRANS INVEST_TRK_MODULE MASS_CHANGE OBJECT_CLASS OTHER_TRANS PROGRAM_ELEMENT ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS

			FUND_PAY VEND_TRANS
TERMS_CNTL_NUM	NUMBER	10	FUND_USE_TRANS (K1)TERMS
TERMS_DAY	NUMBER	2	TERMS
TERMS_NET	NUMBER	2	TERMS
TERMS_PERCENT	NUMBER	5	TERMS
TOT_FT_CHG	NUMBER	10	MASS_CHANGE
TOT_FUT_CHG	NUMBER	10	MASS_CHANGE
TOT_GLD_CHG	NUMBER	10	MASS_CHANGE
TOT_GLS_CHG	NUMBER	10	MASS_CHANGE
TOT_OT_CHG	NUMBER	10	MASS_CHANGE
TOTAL_BILL_AR	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
TOTAL_LOAN_COMMIT	NUMBER	15.2	INVEST_TRK_MODULE
TOTAL_REVENUE	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
TRACKING_CONTRACT_DATE	DATE		INVEST_TRK_MODULE
TRANS_CNTL_NUM	NUMBER	10	(K1)FUNDING_TRANS (K1)FUND_USE_TRANS GL_DETAIL (K1)OTHER_TRANS (K1)VENDOR ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
TRANS_SEQ_NUM	NUMBER	7	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY VEND_TRANS
TRANSACTION_CODE	NUMBER	3	FUNDING_TRANS FUND_USE_TRANS ALL_TRANS FUND_USE_GL FUNDING_GL GL_TRANS FUND_PAY

			VEND_TRANS
TRANSACTION_INDICATOR	VARCHAR2	1	INVEST_TRK_MODULE
TRANSFER_DATA	VARCHAR2	44	FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
TRAVEL_DATE	DATE		FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
TREAS_ACCT	VARCHAR2	4	STANDARD_GL
TREAS_APPROP_PRE	VARCHAR2	2	APPROPRIATION
TREAS_APPROP_SYMB	VARCHAR2	4	APPROPRIATION
TREAS_APPROP_YEAR	CHAR	1	APPROPRIATION
TREASURY_SYMBOL	VARCHAR2	16	APPROPRIATION
TYPE_APPROP	VARCHAR2	1	APPROPRIATION FUND_USE_TRANS OTHER_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
TYPE_OF_ASSISTANCE	VARCHAR2	1	APPROPRIATION
UNBILL_ACC	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
UNDEL_ORDER	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS
UNFD_MATL_COST	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
UNFD_OTHER_COST	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY FUND_USE_TRANS
UNFLD_CUST_ORDER	NUMBER	15.2	ACCT_CLASS_SUMMARY DOCUMENT_SUMMARY

			FUND_USE_TRANS
USER_ID	VARCHAR2	8	(K1)MIR_USER SECU_ACC
USER_TBLS	VARCHAR2	26	MIR_USER
USER_TBLS_QUOTA	VARCHAR2	27	MIR_USER
VEND_TYPE	VARCHAR2	1	VENDOR
VENDOR	VARCHAR2	35	VENDOR FUND_PAY VEND_TRANS
VENDOR_ID_1099	VARCHAR2	1	VENDOR FUND_PAY VEND_TRANS
VENDOR_NUMBER	VARCHAR2	9	INVEST_TRK_MODULE
VENDOR_SSN	VARCHAR2	9	VENDOR FUND_PAY VEND_TRANS
VENDOR_TYPE	VARCHAR2	1	INVEST_TRK_MODULE FUND_PAY VEND_TRANS
VESSEL_COST	NUMBER	15.2	INVEST_TRK_MODULE
VESSEL_DESCRIPTION	VARCHAR2	40	INVEST_TRK_MODULE
VESSEL_GROUP	VARCHAR2	40	INVEST_TRK_MODULE
VESSEL_NAME	VARCHAR2	40	INVEST_TRK_MODULE
VESSEL_NUMBER	VARCHAR2	10	INVEST_TRK_MODULE
VESSEL_SEGMENT	VARCHAR2	10	INVEST_TRK_MODULE
VESSEL_SHORT_NAME	VARCHAR2	4	INVEST_TRK_MODULE
WAREHOUSE_DATE	DATE		FUND_USE_TRANS ALL_TRANS FUND_USE_GL GL_TRANS FUND_PAY VEND_TRANS

Appendix D

Unique Fields for Individual Views/Tables

VIEW NAMES	UNIQUE FIELD(S)
ACCT_CLASS_SUMMARY	ACS_CNTL_NUM
AGENCY	AGY_CODE, RGN_DIST
APPROPRIATION	AGY_CODE, APPROP_CODE, APPROP_CODE_LIM
BANK	BANK_ID
COST_CENTER	AGY_CODE, COST_CENTER
DOCUMENT_SUMMARY	DOC_CNTL_NUM
FUND_CONTROL	AGY_CODE, RGN_DIST, APPROP_CODE, APPROP_CODE_LIM, ALLOT_FUND_CNTL, ALLOT_LEVEL_IND, PROGRAM_ELEMENT, COST_CENTER, OBJECT_CLASS
FUND_USE_TRANS	TRANS_CNTL_NUM
FUNDING_TRANS	TRANS_CNTL_NUM
GL_DETAIL	GL_CNTL_NUM
GL_SUMMARY	GL_CNTL_NUM
INVEST_TRK_MODULE	AGY_CODE, RGN_DIST, DOC_ID
OBJECT_CLASS	AGY_CODE, OBJECT_CLASS
PROGRAM_ELEMENT	AGY_CODE, APPROP_CODE, PROG_ELEMENT
STANDARD_GL	AGY_CODE, RGN_DIST, GL_ACCT
TERMS	TERMS_CNTL_NUM
VENDOR	TRANS_CNTL_NUM

Appendix E

Indexes and Primary Keys

NOTE: Indexes are also used by Compound Views such as Vend_Trans and All_Trans. The most efficient index from fund_use_trans or vendor would be utilized for those views.

ACCT CLASS SUMMARY INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_ACS_ACS#	ACCT_CLASS_SUM	ACS_CNTL_NUM
IDX_ACS_AGY_RGN_CC	ACCT_CLASS_SUM	AGY_CODE, RGN_DIST, COST_CENTER
IDX_ACS_AGY_RGN_OC	ACCT_CLASS_SUM	AGY_CODE, RGN_DIST, OBJECT_CLASS
IDX_ACS_AGY_RGN_PE	ACCT_CLASS_SUM	AGY_CODE, RGN_DIST, PROGRAM_ELEMENT
IDX_ACS_AGY_RGN_PROJ #	ACCT_CLASS_SUM	AGY_CODE, RGN_DIST, PROJECT_NUMBER
UN_ACS_1	ACCT_CLASS_SUM	AGY_CODE, RGN_DIST, APPROP_CODE, APPROP_CODE_LIM, ALLOT_FUND_CTL, PROGRAM_ELEMENT, COST_CENTER, SYSTEM_CODE, PROJECT_NUMBER, PLAN_LEVEL2_IND, PLAN_LEVEL3_IND, PUBLIC_GOVT_IND, FIS_YEAR

AGENCY INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_AGNY_AGY_RGN	AGENCY	AGY_CODE, RGN_DIST
IDX_AGNY_ANAME	AGENCY	AGENCY_NAME

APPROPRIATION INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_APPROP_AGY_APPR_LIM	APPROPRIATION	AGY_CODE, APPROP_CODE, APPROP_CODE_LIM
IDX_APPROP_AGY_APPR_NAM	APPROPRIATION	AGY_CODE APPROP_CODE_NAME
IDX_APPROP_AGY_FT	APPROPRIATION	AGY_CODE, FUND_TYPE
IDX_APPROP_AGY_PREFIX	APPROPRIATION	AGY_CODE, TREAS_APPROP_PRE
IDX_APPROP_AGY_SYMBL	APPROPRIATION	AGY_CODE, TREAS_APPROP_SYMB
IDX_APPROP_AGY_SYMBOL	APPROPRIATION	AGY_CODE TREASURY_SYMBOL

BANK INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_BNK_BANKID	BANK	BANK_ID
IDX_BNK_BNAME	BANK	BANK_ADDRESS_NAME

COST CENTER INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_CC_AGY_RGN_CC	COST_CENTER	AGY_CODE, RGN_DIST, COST_CENTER
IDX_CC_AGY_RGN_CCNAME	COST_CENTER	AGY_CODE, RGN_DIST, COST_CENTER_NAME

DOCUMENT SUMMARY INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_DOC_DOC#	DOCUMENT_SUMMARY	DOC_CNTL_NUM
IDX_DOC_ACS#	DOCUMENT_SUMMARY	ACS_CNTL_NUM
IDX_DOC_ID_2	DOCUMENT_SUMMARY	AGY_CODE, RGN_DIST, DOC_TYPE< DOC_FIS_YEAR, DOC_NUMBER, DOC_SUFFIX

FUND CONTROL INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_FND_CNTL_1	FUND_CONTROL	AGY_CODE, RGN_DIST, APPROP_CODE, APPROP_CODE_LIM, ALLOT_FUND_CNTL, ALLOT_LEVEL_IND, PROGRAM_ELEMENT

FUNDING TRANS INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_FT_TRANS#	FUNDING_TRANS	TRANS_CNTL_NUM
IDX_FT_1	FUNDING_TRANS	INPUT_AGY_CODE, INPUT_RGN_DIST, BATCH_ID, TRANS_SEQ_NUM
IDX_FT_2	FUNDING_TRANS	AGY_CODE, RGN_DIST, DOC_TYPE, DOC_FIS_YEAR, DOC_NUMBER, DOC_SUFFIX
IDX_FT_ACS#	FUNDING_TRANS	ACS_CNTL_NUM
IDX_FT_DOC#	FUNDING_TRANS	DOC_CNTL_NUM
IDX_FT_IAGY_IRGN_USER	FUNDING_TRANS	INPUT_AGY_CODE, INPUT_RGN_DIST, TERM_USER_ID

FUND USE TRANS INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_FUT_TRANS#	FUND_USE_TRANS	TRANS_CNTL_NUM
IDX_FUT_1	FUND_USE_TRANS	INPUT_AGY_CODE, INPUT_RGN_DIST, BATCH_ID, TRANS_SEQ_NUM
IDX_FUT_3	FUND_USE_TRANS	AGY_CODE, RGN_DIST, DOC_TYPE, DOC_FIS_YEAR, DOC_NUMBER, DOC_SUFFIX
IDX_FUT_7	FUND_USE_TRANS	AGY_CODE, RGN_DIST, APPROP_CODE, BATCH_ID, PROCESS_DATE,
IDX_FUT_ACS#	FUND_USE_TRANS	ACS_CNTL_NUM
IDX_FUT_AGY_RGN_OC	FUND_USE_TRANS	AGY_CODE, RGN_DIST, OBJECT_CLASS
IDX_FUT_AGY_RGN_PRCDE	FUND_USE_TRANS	AGY_CODE, RGN_DIST, PROCESS_DATE
IDX_FT_DOC#	FUND_USE_TRANS	DOC_CNTL_NUM
IDX_FUT_IAGY_IRGN_USER	FUND_USE_TRANS	INPUT_AGY_CODE, INPUT_RGN_DIST, TERM_USER_ID
IDX_FUT_TERMS#	FUND_USE_TRANS	TERMS_CNTL_NUM

GENERAL LEDGER DETAIL INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_GLD_GL#_FYM	GL_DETAIL	GL_CNTL_NUM
		FIS_YEAR_MONTH
IDX_GLD_TRANS#	GL_DETAIL	TRANS_CNTL_NUM

GENERAL LEDGER SUMMARY INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_GLS_GL#_FYMO	GL_SUMMARY	GL_CNTL_NUM, FIS_YEAR_MONTH
UN_GLS_ACS#_AC_FYMO	GL_SUMMARY	ACS_CNTL_NUM, GL_ACCT' FIS_YEAR_MONTH
IDX_GLS_2	GL_SUMMARY	AGY_CODE, RGN_DIST, APPROP_CODE, APPROP_CODE_LIM, ALLOT_FUND_CNTL, GL_ACCT
IDX_GLS_3	GL_SUMMARY	AGY_CODE, RGN_DIST, GL_ACCT, APPROP_CODE
IDX_GLS_4	GL_SUMMARY	GL_ACCT, AGY_CODE, RGN_DIST, APPROP_CODE, APPROP_CODE_LIM, ALLOT_FUND_CNTL
IDX_GLS_AGY_RGN_CC	GL_SUMMARY	AGY_CODE, RGN_DIST, COST_CENTER

INVESTMENT TRACKING MODULE INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_ITM_AGY_RGN	INVEST_TRK_MODULE	AGY_CODE, RGN_DIST

OBJECT CLASS INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_OC_AGY_RGN_OCNAME	OBJECT_CLASS	AGY_CODE, RGN_DIST, OBJ_CLASS_NAME
IDX_OC_AGY_RGN_TBL	OBJECT_CLASS	AGY_CODE, RGN_DIST< OBJECT_CLASS

PROGRAM ELEMENT INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_PE_1	PROGRAM_ELEMENT	AGY_CODE, RGN_DIST, APPROP_CODE, PROGRAM_ELEMENT
IDX_PE_PENM	PROGRAM_ELEMENT	PROG_ELEM_NAME

STANDARD GENERAL LEDGER INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
IDX_STDGL_AC	STANDARD_GL	GL_ACCT
IDX_STDGL_GLNAME	STANDARD_GL	GL_ACCT_NAME

TERMS INDEXES

INDEX NAME	VIEW NAME	SORT ORDER
PK_TERMS_TERMS#	TERMS	TERMS_CNTL_NUM
PK_USCGBCF_1	~~~~	INPUT_AGY_CODE, INPUT_RGN_DIST, BATCH_ID, TRANS_SEQ_NUM, DATE_STAMP



VENDOR






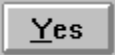
INDEX NAME	VIEW NAME	SORT ORDER
PK_VEND_TRANS#	VENDOR	TRANS_CNTL_NUM
IDX_VEND_1	VENDOR	AGY_CODE, RGN_DIST, VEND_TYPE, VENDOR_SSN
IDX_VEND_AGY_ADDRNM	VENDOR	AGY_CODE, ADDRESS_NAME
IDX_VEND_BNK#	VENDOR	BANK_ID



Appendix F






Installation Instructions for the Network Administrator/PC Trouble Shooter

Use the following steps for installation:

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 1	Check with your communication personnel for type of NETWORK being used (Microsoft® Windows NT, NOVELL, DOS LAN, etc.).	
Step 2	Determine which operating system is being used on the client (your PC). Click on HELP in the Menu Bar of the Program Manager Window. Click on About Program Manager .	A dialog box will appear showing which operating system is being used (Microsoft®Windows NT, Microsoft®Windows For Workgroups, Microsoft®Windows Version 3.11, 3.1 or 3.0)
Step 3	<p>Determine if SQL_NET has been installed. If Oracle Installer is</p>  <p>installed, click on Oracle Installer (usually in an Oracle Group) and determine installed components. or:</p> <p>Click on the MAIN group in the Program Manager Window.</p>  <p>Double-click MS-DOS Prompt. At the DOS prompt, type path and press Enter. Check the path for orawin\bin.</p>	If found, SQL_NET may already be installed. If it is, find out why. IPPS may be set up using SQL_NET version 1.

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 3 (con't)	 <p>Call communications for help. It may be necessary to deinstall SQL_NET and redo the TNSNAMES.ORA file or add a paragraph to the TNSNAMES.ORA file.</p> <p>Type exit and press Enter to return to windows.</p>	
Step 4	<p>If Oracle Installer is not installed, from the SQL_NET_CD, under windows\install, run orainst.exe. Four dialog boxes will appear with the following questions:</p> <p>(1) Language?: Select desired language.</p> <p></p> <p>Click .</p> <p>(2) Customer Name?: Type DOT or your agency name/code. Click .</p> <p>(3) Default Dir?: Type C:\ORAWIN.</p> <p>Click .</p> <p>(4) Configuration?: Select Update Autoexec.bat. Click .</p> <p>NOTE: The Default is set to "NO"; be sure to click on "YES".</p> <p>Install while pressing the CTRL KEY:</p> <p>ORACLE TCP/IP ADAPTER REQUIRED SUPPORT FILES (7.0) REQUIRED SUPPORT FILES (7.1) SQL*NET</p>	<p>When installing ORACLE TCP/IP, an additional screen will come up to select the TCP/IP drivers. From the information gained in Step 1, select:</p> <p>Microsoft NT TCP/IP or Microsoft Windows for Workgroups TCP/IP or FRONTIER SUPER-TCP or NOVELL LAN WORKPLACE or one of the 26 or so others as required.</p>

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 5	<p>Determine if WIN32S has been installed (unless using NT from Step 2).</p> <p>Click on the MAIN group in the Program Manager Window.</p>  <p>Double-click File Manager.</p> <p>Look for the WIN32S directory. If it is found, WIN32S is already installed.</p> <p>If WIN32S has not been installed, execute the setup.exe from the SQL_NET CD under win32s\disk1.</p>	
Step 6	<p>Copy TNSNAMES.ORA and SQLNET.ORA from the MIRFILES diskette to c:\orawin\network\admin</p> <p>After the files are copied, use</p>  <p>Notepad (or some other editor) to edit the SQLNET.ORA file to ensure that the crypto seed is unique.</p> <p>Save the file.</p>	<p>Copies of these files are shown below (Example 1).</p> <p>See file print of sqlnet.ora file below. It is recommended that positions 5-8 be changed to the phone extension where the personal computer is located. For example, if the phone extension is 8923, change the 5184 in position 5-8 of the CRYPTO_SEED to 8923. The CRYPTO_SEED would then be '33158923713215540464'.</p>
Step 7	<p>Install ODBC:</p> <p>Create subdirectory such as ODBC7 under WINDOWS\SYSTEM.</p> <p>Copy ODBC7.EXE from the MIRFILES diskette to this subdirectory.</p> <p>Go to the DOS PROMPT and change directory to C:\WINDOWS\SYSTEM\ODBC7</p> <p>Type 'odbc7 -d'.</p> <p>Return to Windows and execute the setup under the ODBC7 directory.</p> <p>Select ORACLE 7, DATA SOURCE, ORACLE 7.</p>	

STEP	WHAT YOU DO	COMMENTS/PROMPTS
Step 7 (con't)	In the dialogue boxes, type DAFIS MIR / DW DAFIS MIR DATA WAREHOUSE or ORACLE 7 ODBC Data Source crft.world	
Step 8	Install DAFIS MIR HELP system from disk or web site. Click on FILE in the Menu Bar of the Program Manager Window. Select RUN, Browse, Drive A:, MIR_HELP and execute the setup.exe file.	
Step 9	Ensure that VIRTUAL MEMORY is set up. Click on the MAIN group in the Program Manager Window.  Double-click Control Panel, then  Select VIRTUAL MEMORY. If the Swap File settings are as set as required above, click  and return to the Program Manager Window. If the settings are not set as required above, click  . Under NEW SWAP FILE settings, select drive (probably C), select PERMANENT as Type. NEW SIZE should equal at least 20,480. Turn on (X should show in check box) 32-BIT DISK ACCESS and USE 32-BIT FILE ACCESS.  Click	VIRTUAL MEMORY is set if SWAP FILE settings are set to a drive, size is set, type equals permanent, and disk access is set to 32-bit access.
Step 10	Return to the Program Manager Window and check commonly used applications to ensure they still work properly.	
Step 11	REBOOT SYSTEM!	

```
#####
# Filename.....: sqlnet.ora
# Name.....: crft.world
# Date.....: 20-JUL-95 09:11:57
#####
AUTOMATIC_IPC = off
TRACE_LEVEL_CLIENT = OFF
SQLNET.EXPIRE_TIME = 2147483647
NAMES.DEFAULT_DOMAIN = world (If you have a local Oracle database, leave
out)
NAME.DEFAULT_ZONE = world (If you have a local Oracle database, leave
out)
SQLNET.CRYPTO_SEED = "33155184713215540464"
use_dedicated_server=on
trace_file_client = sqlnet
log_file_client = sqlnet
trace_directory_client=C:\ORAWIN\network\trace
log_directory_client=C:\ORAWIN\network\log

#####
# Filename.....: tnsnames.ora
# Name.....: LOCAL_REGION.world
# Date.....: 20-JUL-95 09:11:57
#####
crft.world =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS =
        (COMMUNITY = crft.world)
        (PROTOCOL = TCP)
        (Host = 162.58.29.153)
        (Port = 1521)
      )
    )
    (CONNECT_DATA =
      (SID = crft)
      (GLOBAL_NAME = crft.world)
    )
  )
)
```


Frequently Asked Questions About Installation

When All Else Fails.....

If running LAN DOS and the file “wlibsock.dll” is not found, it can be copied from the MIR FILES diskette to orawin\bin.

Use the ping utility to ping ip address 162.58.29.153. If the ping works, TCP/IP communications are working.

Use the ODBC test to connect to crft.world. If connection is made, the MIR system is up.

If Netmanage (Chameleon) TCP/IP is being used, the host file may not be setup. Select custom, services, and host file and set up the host name (crft.world).

If an internet browser (Such as Netscape, Internet Explorer, Mosaic, or Internet Works) or Attachmate Extra! For Windows have been recently loaded they may load a file “windsock.dll” and change the path statement in the “autoexec.bat”. This may conflict with DAFIS MIR / DW access and the file needs to be renamed, also c:\orawin\bin needs to be near the first of the path statement.

Contact the MIR Team (Keith Nelson, phone: 405-954-6939; E-Mail: Keith_A._Nelson@mmacmail.jccbi.gov) to help you.

Glossary of Terms

Allotment Control File (ACF)

This file provides the current status of funds at the fund authority, fund use, and fund realization stages. Information from this file is stored as a table/view in the DAFIS MIR D / W.

Batch Control File (BCF)

Batches created during one business day are housed in this file until overnight processing is complete. Information from this file is stored as a table/view in the DAFIS MIR D / W.

Beta Test

A thorough analysis of a software package in a production environment using actual transactions.

Block

A group of SQL commands related to one another through procedural logic.

Client

Most often a personal computer. Initiates an action by requesting data from the server.

Column

Data element (field or variable) in a table.

Command

An instruction you give in your application.

CRAFTS

(Centralized Repository of Accounting and Financial Transactions and Summaries) The new data warehouse for the Department of Transportation commonly called DAFIS MIR / DW.

DAFIS

Departmental Accounting and Financial Information System

DAFIS MIR / DW

(DAFIS Management Information Reporting / Data Warehouse) A reporting system that allows users to extract summary and transaction level information from the DAFIS Data Warehouse database to be used to meet individual reporting needs.

Database

Group of files that together provide all information available on the entire system. A collection of related tables.

Fiscal Status File (FSF)

Contains summary fund usage and program plan information which is accumulated by accounting classification. Information from this file is stored as a table/view in the DAFIS MIR D / W.

FOD Table

Financial Organization Directory Table. Data Elements are Bank-ID, Bank Name, Bank Address, New Bank-ID. Updated monthly from a Treasury tape which contains ACH/EFT bank information. User has inquiry capability only.

Foreign Key

A field in one table that is the primary key (or part of the primary key) in another table.

GLU

(General Load Utility) Used by the database administrator to load information into the DAFIS MIR / DW data warehouse.

Group By

Groups a resultant set of data by the field to which the "group by" is assigned. For instance, if the "group by" is assigned to LIMITATION, the data will be returned with all like limitations together and listed in order of next column heading (Cost Center, Program Element, etc.).

GUI

(Graphic User Interface) A means of access to computer software using data and icons in a bit-mapped (rather than character-based) display which can be manipulated with a mouse or similar device.

Index

A separate list created for a column that provides greater efficiency in sorting or retrieving data queried. Compare to an index in a book.

Interface Document File (IDF)

Holds documents and detail which are still active and have not been purged. Similar to the DOCUMENT_SUMMARY in the MIR D/ W although the data is held longer in the data warehouse.

Join

When two tables have related data, join creates a relationship between the two tables based on common data fields.

Link

Inserting into a worksheet or report information that retains a connection to the source document. Linked data is updated when the data in the source document changes. Linked data is stored in the source file; the worksheet or report stores only the location of the source but displays a representation of the linked data.

Merge

To bring data together whether from two worksheets, two data tables, two databases, etc.

Network

Telecommunications infrastructure allowing cooperative processing.

Null

The value when an actual value is not applicable or unknown.

One-to-Many

A type of join that connects a single field in one table to multiple fields in one or more other tables.

One-to-One

A type of join that connects a single field in one table to a single field in another table.

Open Document File (ODF)

Contains a history of open documents and closed or completed documents which have not been purged. Similar to the DOCUMENT_SUMMARY in the MIR D/ W although the data is held longer in the data warehouse.

Oracle SQL*Plus

A software application used in conjunction with the SQL database language. Oracle SQL*Plus allows you to manipulate SQL commands and perform many additional tasks as well.

PAINTS

(Propagation of Accounting Information/New Transactions) The process that extracts data from the mainframe for use by DAFIS MIR / DW.

Primary Key

The field or group of fields that make the record unique or different than any other.

Query

An SQL command (specifically an SQL SELECT command) that retrieves information from one or more tables.

Query Results

The data retrieved by a query. Also called a result set.

RDBMS

(Relational Database Management System) Furnishes a method for storing and manipulating information about a variety of data and the relationships among this data.

Report

Result set in a logical and meaningful format.

Report Identification Symbol (RIS NO)

The alpha/numeric symbol used to identify DAFIS reports.

Result Set

The data that is returned as a consequence of a query. Also called query results.

Row

A single occurrence of logically related data within a table. Can be thought of as a record.

Server

Provides a service, normally data, to a requesting client.

SQL

(Structured Query Language) A programming language used to extract data from a database server.

Table

A two-dimensional collection of data containing unique columns and rows. Also, the basic unit of storage in ORACLE.

View

A pre-joined result set that is treated logically as a table.

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